

REMARKS

This is in full and timely response to the Official Action of August 10, 2006. Reexamination and reconsideration are respectfully requested.

Claims 1 to 7 were pending in this application when subjected to this Action. Claims 5 to 7 are allowed and are thus retained without further amendments. Claims 1 and 2 are further amended, and a new claim 8 added, as will be discussed, to claim features of the optical resonator and laser oscillator not taught or suggested by the Ishikuza '870 reference alone or in combination as applied.

It is not believed that Ishizuka has been made of record by either the examiner or the Applicant, except through discussions in this Action of its application to claim 1 on the one hand as an anticipatory reference, and to claims 2 to 4 as a reference making these claims obvious in combination with Laurell. It is observed that Ishizuka is non-analogous art in that it relates to an apparatus for detecting rotation of a scale having a diffraction grating; thus, this reference is not a candidate for one of skill in the art to look for being placed in possession of a claimed invention for an optical resonator or a laser oscillator.

Claim 1 was rejected as anticipated by Ishizuka '870. Notwithstanding the observations above, claim 1 is amended to recite features not evidently taught or suggested by Ishizuka. Specifically, it is indicated that the concave portion of the second substrate is located at a central portion of the second substrate, and that the radius of curvature and diameter of the concave portion of the second substrate provide a desired cavity length and a diameter of a light beam to be captured in the optical resonator. Further, the second reflective mirror is said to have a point where a normal of the first reflective mirror on the first substrate perpendicularly intersects the second reflective mirror on the second substrate. Further, it is now positively indicated that the recited surfaces in the last paragraph of claim 1 are bonded to cause light to resonate reliably.

These features are discussed generally at pages 10 to 12 of the specification as filed, and indicate an advantage that the cavity length of the optical resonator 1 can be reduced (page 10, second full paragraph) so that the distance between the reflective mirrors can be reduced (see the

third full paragraph on page 10). Support for the feature that a normal of the reflective mirror 13 perpendicularly intersects the reflective mirror 14 is stated in the first full paragraph of page 12.

Ishikuza '870 is not apparently concerned with reducing optical length for his purposes, or providing the features now recited in amended claim 1, having the advantages discussed. Claim 1 thus should be patentable over Ishikuza '870.

Claims 2 to 4 were rejected as unpatentable over Ishikuza' 870 in view of Laurell. First, there is no satisfactory finding to suggest a motivation for modifying either reference in view of the other given the skill in this art. Nevertheless, claim 2 is amended and a new claim 8 added to recite a feature of the combination for achieving single-longitudinal-mode oscillation according to the relationship recited in the last full paragraph of amended claim 2, and in newly-added claim 8. Those features are recited on page 14, third to fifth full paragraphs, noting that the feature at the top of page 15 is contained in allowable claim 5.

The combination, if appropriate, or either Ishikuza or Laurell, do not teach these features explicitly or sufficiently to place one of skill in the art in possession of the invention claimed in amended claims 2 to 4 and 8. In view of the above amendment, applicant believes the pending application is in condition for allowance.

Claims 1 to 4 as amended, new claim 8 and allowed claims 5 to 7 are submitted to be allowable over the art of record and early notice to that effect is respectfully solicited.

Application No. 10/787,078
Amendment dated September 18, 2006
Reply to Office Action of August 10, 2006

Docket No.: SON-2938

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2938 from which the undersigned is authorized to draw.

Dated: September 18, 2006

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Respectfully submitted,

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